WHAT IS CLAIMED IS:

1. A lane deviation alarm system, comprising:

a lane defining line detecting section that detects a lane defining line of a lane traveled by a host vehicle; and

a criteria changing section that changes a criteria for determining a lane deviation tendency of the host vehicle, on the basis of a detecting condition of the lane defining line.

2. The lane deviation alarm system as claimed in claim 1, further comprising:

a yaw angle detecting section that detects a yaw angle of the host vehicle on the basis of the detected lane defining lines;

a forward-observed-point calculating section that calculates a forward observed point by multiplying a vehicle speed of the host vehicle and an anticipated deviation time;

a forward-observed-point lateral-displacement calculating section that calculates a lateral displacement at the forward-observed-point, on the basis of the yaw angle and the forward-observed-point;

a lane deviation tendency determining section that determines whether the host vehicle is in a lane deviation tendency, on the basis of the forward-observed-point lateral-displacement; and

a lane deviation tendency informing section that informs a driver that the host vehicle is in the lane deviation tendency, on the basis of the determination result at the lane deviation tendency determining section,

wherein the criteria changing section changes an anticipated deviation time so as to decrease the influence of the yaw angle on the calculation of the forward-observed-point lateral-displacement when the lane defining line detecting section detects only one of both lane defining lines.

3. The lane deviation alarm system as claimed in claim 1, wherein the criteria changing section changes the criteria of the lane deviation tendency on the basis of the lane defining line, so that a decision of the lane deviation tendency is suppressed as the non-detection frequency of the lane defining line increases.

4. The lane deviation alarm system as claimed in claim 1, wherein the criteria changing section increases a change quantity of an anticipated deviation time as the non-detection frequency of the lane defining line increases.

5. The lane deviation alarm system as claimed in claim 2, wherein the lane deviation tendency determining section determines the lane deviation tendency by comparing the forward-observed-point lateral-displacement and each threshold of each lane defining line, and further comprising a threshold changing means that changes the threshold when a state that the lane defining line detecting section detects one of both lane defining lines continues for a first predetermined time.

6. The lane deviation alarm system as claimed in claim 5, wherein the threshold changing section increases the

change quantity of the threshold as the non-detection frequency of the one lane defining line increases.

7. The lane deviation alarm system as claimed in claim 5, further comprising a lane defining line anticipating model which corrects a location of a lane defining line detected with a high detection frequency and a location of the other lane defining line detected with a low detection frequency, using a detection result of the lane defining line detected with the high detection frequency,

wherein the correction result of the lane defining line locations using the lane defining line anticipation model affects the forward-observed-point lateral-displacement to generate an error,

wherein the threshold changing section determines the threshold taking account of the forward-observed-point lateral-displacement including the error due to the correction result.

8. The lane deviation alarm system as claimed in claim 1, wherein the lane defining line detecting section includes a camera system which takes an image indicative of the lane defining lines of a traveling lane and which is capable of varying a setting of an image picking-up condition according to the image picking-up environment, and the criteria changing section changes the criteria when the setting of the image picking-up condition is changed.

9. The lane deviation alarm system as claimed in claim 5, wherein the lane deviation tendency determining section stops the determination of the lane deviation

tendency based on the undetected lane defining line when a state that the lane defining line detecting section detects one of both lane defining lines continues for a second predetermined time.

10. The lane deviation alarm system as claimed in claim 1, wherein the criteria changing section decreases an anticipated deviation time as the non-detection frequency of the lane defining line increases.

11. The lane deviation alarm system as claimed in claim 5, wherein the threshold changing section increases the threshold when a state that the lane defining line detecting section detects one of both lane defining lines continues for the first predetermined time.

12. A lane deviation alarm system, comprising:

a controller arranged

to detect a lane defining line of a lane traveled by a host vehicle,

to change a decision criteria for determining a lane deviation tendency of the host vehicle, on the basis of a detecting condition of the lane defining line, and

to generate an alarm when the lane deviation tendency is determined by comparing a relationship between the host vehicle and the lane defining line with the criteria.

13. A method of generating an alarm when a lane deviation tendency of a host vehicle is determined, the method comprising:

detecting a lane defining line of a lane traveled by a host vehicle; and

changing a criteria for determining a lane deviation tendency of the host vehicle, on the basis of a detecting condition of the lane defining line.

14. A lane deviation alarm system, comprising:

lane defining line detecting means for detecting a lane defining line of a lane traveled by a host vehicle; and

criteria changing means for changes a criteria for determining a lane deviation tendency of the host vehicle, on the basis of a detecting condition of the lane defining line.